

12 V, 150 mA non-isolated buck converter using VIPer™ Plus - VIPER06XS

Data brief



Description

The STEVAL-ISA115V1 evaluation board is a 12 V / 0.15 A power supply set in buck topology with the VIPER06XS, a new off-line high voltage converter by STMicroelectronics.

The features of the device include an 800 V avalanche rugged power section, PWM operation at 30 kHz with frequency jittering for lower EMI, current limiting with adjustable set point, onboard soft-start, a safe auto-restart after a fault condition and low standby power consumption.

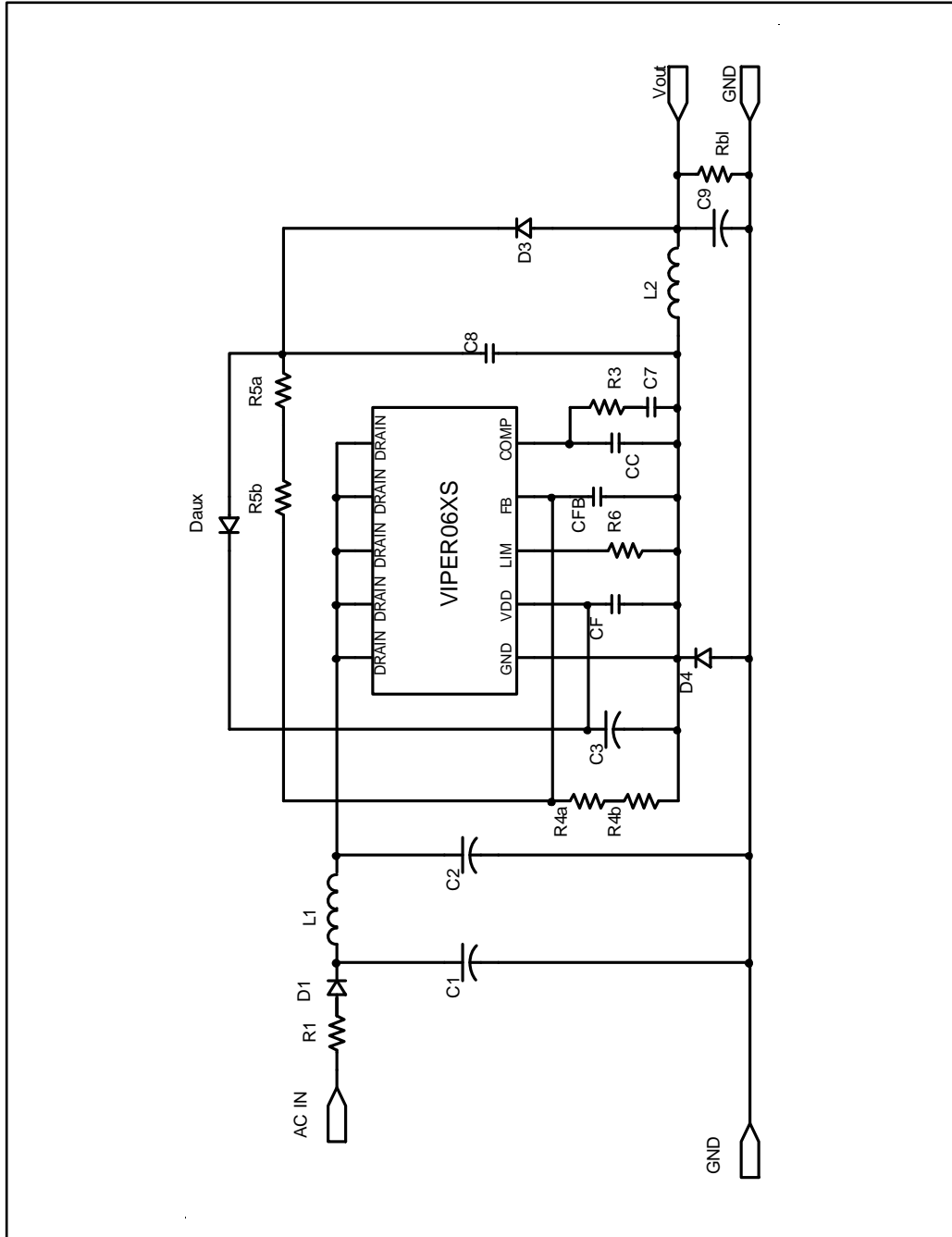
Available protection features include thermal shutdown with hysteresis, delayed overload protection and open loop failure protection. All protection is auto-restart mode.

Features

- Universal input mains range:
 - input voltage: 90 VAC - 264 VAC
 - frequency: 45 Hz - 65 Hz
- Single-output voltage: 12 V @ 0.15 A continuous operation
- Standby mains consumption: < 50 mW @ 265 VAC
- Average efficiency: > 75%
- Fully protected against faults (overload, feedback disconnection and overheating)
- EMI: in accordance with EN55022-Class-B
- RoHS compliant

1 Schematic

Figure 1: Schematic diagram



2 Revision history

Table 1: Document revision history

Date	Revision	Changes
22-Apr-2013	1	First release.
08-May-2014	2	Title has been updated.